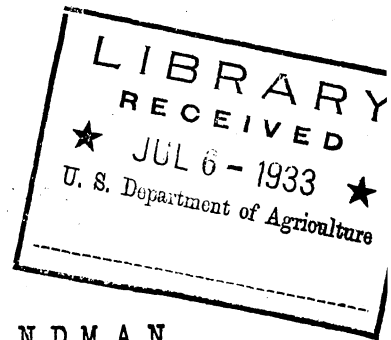


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THE EXTENSION ANIMAL HUSBANDMAN

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C. D. Lowe, Senior Extension Animal Husbandman,
K. F. Warner, Animal Husbandman in Meat Extension

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Special Articles in this Issue:

Page

South Dakota County Purebred Sire Exchange Days, by I. B. Johnson	2
Wisconsin Quality-Lamb Project, 1933, by Jas. Lacey	8
New Mexico Cattle Marketing Activities, by W. L. Black	10
Results of Pork-Curing Demonstrations in Mississippi, by Paul F. Newell	13
Colorado Wool Improvement, by A. C. Allen	15

Also:

Missouri Demonstration Results	4
Kansas Creep-Feeding Demonstration Results	5
Idaho Summary of 1932 Work	12
Excerpts from Oklahoma Report	16
Summary of Missouri Results	17
Texas Swine Demonstrations	18
Young Pig Mortality	21
Illinois Swine Feeding Notes	22
Ohio Ton Litter Club	22
Wolverine Lamb-Production Contest, 1932	23
Kansas Beef Cattle Demonstration Statistics	25
South Carolina Shearing Demonstrations	25
Nebraska Pig Crop Contest, 1932	26
Recent Publications	27

SOUTH DAKOTA COUNTY PUREBRED SIRE EXCHANGE DAYS

By

I. B. Johnson, Extension Animal Husbandman.

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Due to the economic conditions and the prices that have been paid for livestock and livestock products, it became increasingly difficult for the farmers to keep up the standard of their herds and flocks. There was not the usual interest shown in the selection of good purebred sires for these herds and flocks. Very few county fairs were held in South Dakota and the livestock industry was the loser. Therefore, it appeared that a county purebred Sire Exchange Day would fill a real need and render a service to the stockmen and farmers who patronized the event, with scarcely any expense to the community in which it was held.

Contacting the Communities

Before launching the work in a State-wide way a circular letter, explaining the purpose of such an activity, was mailed to the purebred livestock breeders throughout the State. Their responses to this letter were very favorable and so it was determined to go ahead with the exchanges. Three other extension workers, the extension dairyman, the extension economist in marketing, and the extension poultryman, cooperated with the extension animal husbandman in contacting the non-county agent counties; they also participated in the activities at some of the exchanges.

At the outset in contacting the different counties, a few successful livestock breeders and farmers in each county were approached as to the possibilities for such an exchange day in their county. The officers of an active commercial or social organization in the county seat were conferred with concerning the possibility of their organization's fostering a day of this kind. If such an activity was generally agreed upon, a date was set, and local publicity and advertising were given the event.

Local Committees Have Important Duties

There was a tendency on the part of a few local Sire Exchange Day committees to include too much entertainment for the day's activities. This naturally detracted from the effectiveness of the exchange. Some of the most successful exchanges had but one or two methods of entertainment. Some committees provided a free picture

show for the farmers and their families on exchange day. At some of these, State and government films were shown, emphasizing the importance of using good purebred sires. The day of the exchange in McCook County was a cold one and so the local committee provided plenty of hot coffee and doughnuts for those participating. This plus a concert by the high school band provided all the entertainment needed for the day and helped to make it a success.

On the day of the exchange an extension representative was present to assist wherever possible in making the event a success. At some of the exchanges, demonstrations were given on what to look for in selecting good purebred sires, and at others talks were given on the value of good purebred sires. At most every exchange the extension worker found ample opportunity to assist buyers and sellers in getting together.

It is suggested that, at every exchange, the local committee ought to caution the farmers about bringing in only good sires; those of poor type and conformation do not have a place at the exchange. Suitable pens for displaying the sires should also be provided. Finally, every person that enters livestock or poultry for the exchange should be cautioned to be on hand to endeavor to dispose of his or her entries, instead of leaving them with the committee and strolling off to see what entertainment was afforded.

Sire Exchange Days Successful

There were 24 county sire exchange days held throughout the State in 1932 with 27 counties participating. Five other counties, that found it inadvisable to hold an exchange day, carried a sire-exchange column in their local papers. Three of the exchange days were held the latter part of September, but this was too early in the season for most effective results. Those held during the month of October and the first ten days of November were most successful.

The exchange day in Brookings County was the largest, with 305 sires entered. In Dewey County 57 percent of the sires entered were either sold or traded; in McCook County 55 percent; in McPherson County 48 percent; and in Beadle County, where sire exchange days have been held annually for the past six years, 38 percent of the sires were sold or traded. Forty-two percent of the sires at the exchanges held in county-agent counties were sold or traded on the day of exchange, while in the non-county-agent counties only 33 percent of them were sold or traded.

Value of Exchanges Carries On

The cumulative value of these sire exchange days is clearly expressed in a letter from County Agent Norgaard of Onida. He states - "I do not have record of all the exchanges made, and the number of sires sold that day would make the event look like a failure, whereas everyone considered it a big success. Exchanges were made that day by farmers who brought in no sires. Most of the animals entered that day have been sold or exchanged later because many were not ready to make the deal on that particular day. From later reports, I believe that over 80 percent of the animals entered have either been exchanged or sold."

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MISSOURI BEEF HERD DEMONSTRATION RESULTS

Year	1926	1927	1928	1929	1930	1931	1932
Number herds	8	10	13	10	8	9	16
Number cows	217	310	409	244	157	144	363
Feed cost per cow	\$19.37	\$21.30	\$20.21	\$23.78	\$20.08	\$17.59	\$16.50
Feed cost on cow per calf raised	\$20.72	\$21.85	\$20.42	\$24.48	\$21.69	\$18.09	\$17.00
Value of feed per calf	\$11.46	\$11.90	\$14.38	\$18.40	\$16.33	\$11.27	\$ 9.50
Charge for bull service, interest, taxes, etc.	\$ 6.20	\$ 6.20	\$ 7.45	\$ 7.15	\$ 7.00	\$ 5.30	\$ 4.50
Total cost per calf ..	\$38.33	\$39.95	\$42.42	\$50.03	\$45.02	\$34.66	\$31.00
Final value per calf .	\$55.35	\$61.22	\$78.76	\$79.50	\$69.00	\$52.52	\$41.80
Return per calf above feed cost and overhead charges	\$16.97	\$21.27	\$36.34	\$29.47	\$23.98	\$17.86	\$10.80

MISSOURI SHEEP IMPROVEMENT RESULTS

Year	farms adopting sheep mgn. practices	pure-bred rams sold at auction	pure-bred rams placed	sheep treated for stomach worms	lambs docked and castrated	lambs creep fed grain	lambs sold on graded basis
1926	349	33	158	15,434	8,107	4,475	460
1927	490	180	304	23,500	21,380	8,310	1,454
1928	2,290	225	527	68,255	59,880	17,910	7,880
1929	4,098	335	673	70,237	132,779	32,647	12,155
1930	5,901	284	732	159,023	278,311	91,734	24,649
1931	7,648	458	1,350	176,660	324,119	75,032	24,413
1932	9,230	518	1,370	119,835	369,590	96,073	27,306

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KANSAS CREEP-FEEDING-DEMONSTRATION RESULTS

The data given are based on the average results obtained during three years' experience in creep feeding calves in Kansas herds that varied in size from 12 calves to 125 calves per herd. The information gathered was from men who had pastures reasonably well adapted to creep feeding. Most of the calves were sold when weighing about 700 pounds as finished calves, and for that reason this weight was used as an average final weight in compiling the data. At this weight, most of the best quality calves had a carcass government grade of Choice. The herds of calves being creep fed were divided into five groups according to their average birth data; Group I averaged January 1 in birth; Group II averaged February 1 in birth; Group III averaged March 1 in birth; Group IV averaged April 1 in birth and Group V averaged May 1 in birth. Group VI represents the average calves born May 1 which were not creep-fed.

From the information given in the chart which follows, the early calves gave the best results in creep feeding; yet calves that come at any time of the year may be creep fed if they can be induced to eat. The early calf did not require so much grain because a cow calving early supplies the calf with milk over a longer period of time than the late-calving cow. The roughage used is not listed, as practically all kinds were used. Practically all the men who kept records also used a protein supplement in varying amounts.

Records on the cost of keeping a cow in central Kansas during the 1929-1930 winter and 1930 summer, together with other charges to produce a calf to weaning time, averaged \$34.39. This did not include the cost of feed which might have been fed to the calf. It included winter and summer charges, cost of the bull service, 8 percent interest on the investment, taxes, depreciation, various incidentals, and in some cases the cost of carrying the cows which lost their calves. The average calf which came on grass and was not creep fed just about paid for this cost. It took the summer's work for the cow to pay the charges against her. If the cow took a 200-pound calf to grass with her, this additional weight usually represented her profit.

While some calves are heavy and fat enough to sell at weaning time, most of the calves in the demonstration were fed out in the dry lot to attain a more desirable weight and finish. Usually at weaning time the early calves that have been creep fed show \$5 to \$10 more profit above feed cost than those not creep fed.

Cows which calve during the fall or early winter require more feed to properly care for the calf until grass time. Yet, where feed is abundant, these calves have done very well when creep fed through the winter and until weaned the following summer. These calves in most cases, have proved to be more satisfactory than when they came too late in the spring.

From the standpoint of the cows' turning off the most beef with the cheapest cost of production, the January, February, and March calves are proving very satisfactory. Late-summer calves proved to be the most unsatisfactory.

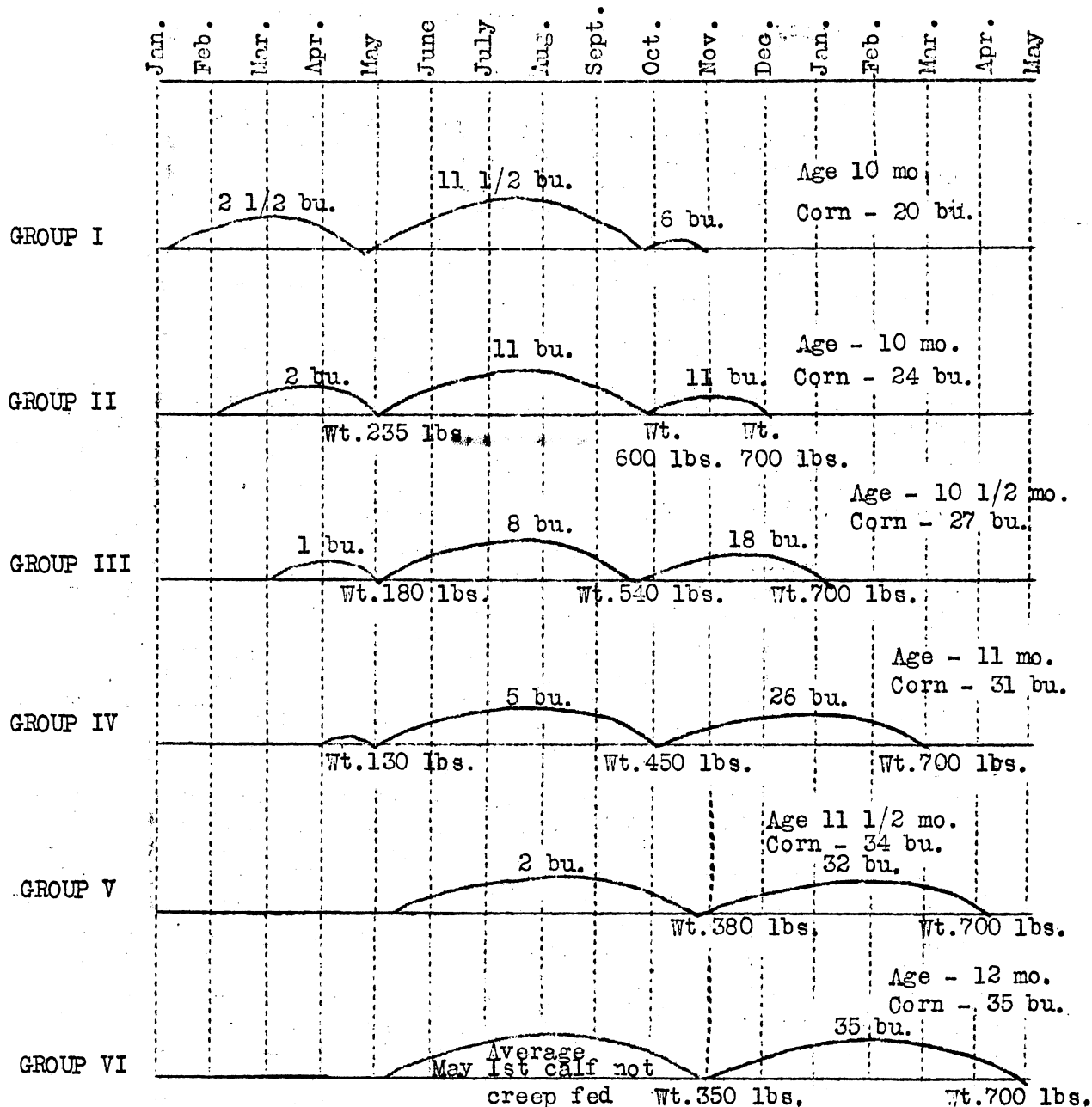
The experience of those who have creep fed calves indicates that early calves will consume from 10 to 15 bushels of grain from the time they start eating until they are weaned in the fall. Late calves will eat considerably less grain than the early calves. A summary of creep-feeding demonstrations in Kansas shows that calves dropped during January and weaned October 1 on an average consumed approximately 14 bushels of grain; February calves consumed about 13 bushels; March calves consumed about 9 bushels; April calves consumed about 6 bushels; and May calves consumed 2 bushels of grain.

The following information reproduced from the results of creep-feeding demonstrations conducted in Kansas will give a concise idea of what to expect as a result of creep feeding calves.

DATA GIVEN: Birth date; amount of grain eaten between birth date and May 1 when put on grass; amount eaten in creep on grass; amount eaten after weaning in dry lot; total amount eaten to reach 700 pounds finished beef; age when finished; weights indicated are home weights for May 1 and for weaning date, and market weight for final weight.

EXAMPLE: Group I - Calved Jan. 1, ate 2 1/2 bushels before going to grass on May 1; then ate 11 1/2 bushels in creep. Weaned October 1 weighing 650 pounds home weight; fed 6 bushels in dry lot and sold November 1 weighing 700 pounds market weight; age when sold 10 months; corn eaten 20 bushels.

KANSAS CREEP-FEEDING-DEMONSTRATION RESULTS -- 9,468 calves



From Annual Report of J. J. Moxley,
Kansas Extension Animal Husbandman.

WISCONSIN QUALITY-LAMB PROJECT, 1933

by

Jas. Lacey, Assistant Professor of Animal Husbandry.

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The Wisconsin Lamb Production Project for 1933 takes into account three prime requirements in meat-animal production at this time. These requirements are:

1. Necessity for economical gains.
2. Need for education on marketing lambs at proper weights.
3. Need for observing relationship between animal and carcass grading.

The essentials of this program, at this time because of existing conditions, are embodied in the Wisconsin Lamb Production Contest that is now starting on its fifth year. The contest is sponsored by the Wisconsin College of Agriculture and the Wisconsin Live Stock Breeders Association, cooperating.

To stress the economical gains phase, meetings have been held in the fall and winter months at which the emphasis was placed on flushing the breeding ewes and on parasite control before the flock is placed in winter quarters. During the winter season, at the regular established farm meetings the importance of a good ration is emphasized. Legume hay plus corn silage, rutabagas or other root crops, with the addition of grain before lambing time is the recommended combination,

Consideration is also given to size of flock and to housing conditions for the period of pregnancy. Recommendations of size of flock are based on the amount of feed available and the number of other livestock already carried. In Wisconsin there is a tendency to permit the flock to dwindle to a size that makes it an unprofitable nuisance, and because of this tendency the Wisconsin lamb project enrolls only flocks that carry at least 15 mature breeding ewes. In past years the northern Wisconsin counties have contributed the greater share of the smaller units.

Creep feeding of the lambs and grain feeding of the ewes, as well, when pastures are not abundant are urged. The relationship existing between rapid and economical gains is brought forth emphatically through meetings and through the press. Suggested rations are given to all owners of enrolled flocks.

Parasite control, particularly among the later-born lambs, is urged through systematic drenching. Demonstrations on drenching for stomach worms are held on farms where flocks are enrolled. In 1933 demonstrations have been held in four counties, and later, in July and August, meetings will be called at the farms of contest members when the drenching work is timely.

Education on marketing lambs at desirable weights was accomplished in 1932 through grading demonstrations held on project farms with a representative of the packer buyers present. When the lambs in the project flocks averaged four months old the grading demonstration was held at the farm. The packer buyer was given an opportunity to sort the lambs into the various grades and to quote prevailing prices. The owner was given an opportunity to sell at such prices -- to verify the grading by the packer representative. Meetings on grading were held in seven counties in 1932 and will be repeated in as many counties as possible in 1933. Sheep owners from surrounding localities are invited to the meetings, which are usually held in the evening. After the grading has been accomplished, other features of sheep management are discussed. These generally pertain to summer care.

In general, the emphasis on market weights is placed on sale early in the season. Wisconsin producers have a tendency to carry their lambs to weights that are too heavy to meet popular demand. The plan of weighing at 120 days of age has brought to the attention of sheep men the fact that lambs can be finished at 80 pounds or better in four months.

The relationship that exists between grade on the hoof and carcass grade is shown to producers through identification of the lambs before slaughter and through carcass grading after slaughter. A grading report is furnished to interested members of the project and a check may be made on the number of carcasses of different grades and the number of lambs of various grades before slaughter. By carrying these final data to the producer it is possible to influence him to observe type in his selection of breeding stock.

Such are the features of the Wisconsin Lamb Production Project. Contact with the owners of enrolled flocks is never lost. Docking and castrating demonstrations are held with the enrolled flocks as the demonstration units. Drenching demonstrations for parasite control offer the same opportunity for contact. The grading demonstration meetings, with the succeeding reports on carcass quality, are the final steps in our quality lamb project. Thirty-five flocks are being enrolled from 20 counties in 1933. These flocks are the nucleus around which the sheep program for 1933 is built.

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NEW MEXICO CATTLE MARKETING ACTIVITIES

By W. L. Black, Extension Animal Husbandman,
State College, New Mexico

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Probably two of the most important activities, from an economic standpoint, which have been stressed during the past two years are the increase in direct selling of feeder cattle to Corn Belt feeders, and the purchasing within the State of registered bulls, rather than going to other States, as was the universal practice before the beginning of the present depression.

The direct sales of feeders have been handled in two distinct ways. The first has been where the county agent obtained a list of Corn Belt feeders, and either contacted them himself in an effort to determine the number and quality of cattle required, or gave the list of such names to ranchmen, leaving it to them to make their own contacts. In this manner the feeders and the ranchmen have been enabled to get together in a great number of cases with the result that rather large numbers of cattle have been sold direct, under this plan.

The second system has been the formation of cooperative marketing agencies with the same object in view. The set-up for these agencies has varied a great deal, depending upon the scope of work to be undertaken and also upon the primary purposes of the organization. Some of these associations have been organized primarily as a feeder-selling proposition, while others are chiefly interested in the sale of registered Hereford breeding stock, with feeder sales as a secondary consideration.

An organization of the first type which has a very simple set-up, but one that seems to be satisfactory, has been established in the southwestern part of the State. The various ranchmen simply fill out a card in the fall, stating the number of animals of different ages and different grades, that they will have for sale. Upon receiving one of these cards the county agent visits the ranch to check up on the grades of the animals as represented by the ranchman. Revised lists are made up after the agent has seen the animals, showing the number of animals of each age and grade for sale in the county. Triplicate copies of this list are made. One list is placed with the secretary of the local chamber of commerce, another with the cashier of the local bank, and the third is kept in the county agent's office. Then a list of prospective feeders is contacted. Those that have done business with the bank are handled through letters written by the bank. Those that are not acquainted with the

bank are handled either by the secretary of the chamber of commerce or by the county agent, depending upon which is the best acquainted with the individual. In some cases supplementary correspondence is conducted by the ranchmen who happen to be personally acquainted with the feeders. It is a very economical set-up, the ranchmen being put to no expense whatever, and the only expense to the other agencies being stationery, postage, etc. The system results in the elimination of "fly-by-night" speculative buyers. In the past a great deal of difficulty has been experienced because of the fact that when a buyer came into a county, if he did not purchase cattle that were listed with these speculative commercial men and demand to see cattle belonging to other stockmen, he was often informed falsely that the cattle had already been sold or perhaps was told that the grade of the cattle was not good enough to interest him. This in many instances caused the buyer to move out into another district thus losing the market to the local ranchmen.

In the south central part of the State another market agency has been established as a subsidiary to a cattle growers' association. The set-up in this agency is of a slightly different character. It happens that all of the members of this association are permissess on the National Forest, and that all their cattle are gathered at the same time in the fall. They have elected a sales manager from among their number whose duty it is to make a determination of the approximate number of the various grades of cattle that they will have for sale. Then he passes this information on to the feeders and also to the commission men and, in cooperation with the Forest Service officials, sets a date when these animals will be penned at a given point and the sale is then made upon a competitive bidding basis, although it is not strictly an auction. Each bidder simply states the price he is willing to pay and the cattle go to the highest bidder. It more nearly resembles a sealed bid sale than it does a direct auction.

In the northeastern part of the State a very comprehensive system of agricultural supervision has been inaugurated. The entire system is what is known as a Country Life Council. This council is composed of business men, bankers, newspaper men, and leaders in agricultural activities of all kinds. Committees for each of the major agricultural commodities of the county are appointed from the membership of this council. This county commodity committee in turn appoints local representatives for the commodity in each of the agricultural districts. Under this set-up a direct selling agency for beef cattle has been formed, as has also, a registered Hereford bull sales agency. This association held its first bull sale in April and is planning to make this sale an annual event. It will also attempt the direct sale of feeder cattle under a plan somewhat similar to that used in the other organizations in the State.

In 1931 a registered cattle breeders' association was formed in the southeastern part of the State and a registered-breeding-cattle sale was held in March, 1932, and another in March of this year. Both these sales were highly successful. The one this year was the largest registered-bull sale that has been held anywhere in the United States during the past two years, and the average price received was the highest for a large number of animals that has been obtained at any sale during the past two years. At this sale a total of 153 registered Hereford bulls and 10 females were sold. The top price on the bulls was \$225.00, with an average of \$137.20, on the first 40 head, and an average of \$99.50 for the entire 153. The top price on the heifers was \$165.00, with an average on the ten head of \$76.50. Plans are already under way for next year's sale and it is intended to hold a 4-H club show in connection with the sale. There are at present in the neighborhood of 70 4-H club calves being placed on feed for this show.

These sales have resulted in the ranchmen's obtaining animals that were acclimated to our conditions, also in money being kept in circulation in our own State. The financial depression has necessarily forced these associations to go rather slow, but a nucleus has been established which facilitates the direct sale of feeder cattle to the Corn Belt and also encourages the breeding of high-class registered cattle within the State. Such activities will inevitably raise the average quality of the cattle, thereby producing a favorable impression upon the feeders who see and purchase them, and also upon other Corn Belt men who may see them after they are placed in the feed lots. Under these conditions the demand for New Mexico feeder cattle should make a steady and permanent increase, thus resulting in an inestimable advantage and benefit to the ranchmen throughout the years to come.

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IDAHO SUMMARY OF 1932 WORK

<u>Item</u>	<u>Beef cattle</u>	<u>Sheep</u>	<u>Swine</u>
Days in field.....	99	177	19 1/2
Farm, range and ranch visits	321	951	66
Demonstration meetings	19	43	23
Demonstration meeting attendance....	627	1,325	649
Other meetings.....	12	34	6
Other meeting Attendance.....	395	840	267
Yearly operation, records kept.....	19	18	0
Office calls and other individual conferences	563	1,289	219
People reached	1,906	4,405	1,201
Number of livestock involved in demon- stration work	41,537	320,460	1,117
Percentage of range stock involved..	5.38	10.5	0
Percentage of farm stock involved...	44.77	44.1	0

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RESULTS OF PORK-CURING DEMONSTRATIONS IN MISSISSIPPI

by

Paul F. Newell, Extension Animal Husbandman

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During the winter of 1932-33, 686,840 pounds of pork were cured for farmers by ice plants and other local cold storage establishments in 14 towns and cities of the State, as a result of a plan sponsored by the Animal Husbandry Division of the Mississippi Extension Service. Briefly, the plan embodied a cooperative arrangement whereby local cold storage units provided space and did the curing at fair rates for farmers who brought their slaughtered hogs in for curing. Following up the proposal of this method of conserving, to greater advantage, the farm pork supply and by way of strengthening the program, 9 field demonstrations at as many points were held by the Animal Husbandry Division in cooperation with county agents, and K. F. Warner of the Bureau of Animal Industry. The demonstrations were attended by 1,480 farmers, and participated in by 37 county agents who extended the cutting and curing methods proposed to the farmers in their several counties. The plan was proposed as part of the Live-at-Home program which the Extension Service was stressing. In view of the fact that Mississippi farmers annually slaughter approximately 120 million pounds of hogs for home use, a considerable percentage of which is lost or is of poor quality, the plan was found to be of high practical value. By curing under refrigeration, losses from souring, which have been sustained by practically every farmer, are largely eliminated. Unstable weather during the months when slaughtering is done has been the cause of the heavy losses when farmers have attempted to cure their pork under natural weather conditions. The demonstrations had a large additional value in improving curing methods among hundreds of farmers who could not use refrigeration.

In order to secure a summary of the results obtained by these demonstrations, a questionnaire was recently sent to county agents and managers of these plants. The accompanying table contains a brief summary of the several questionnaires which were returned.

The work of the past winter has furnished the initial experience of most of these plants and the general result was most satisfactory, both as to quality and volume. Approximately three-fourths of 1 percent of the total farm-slaughtered pork was cured under refrigeration and a high appraisal on quality was given by farmers generally.

Consolidated record of pork curing at ice and other plants
for Mississippi farmers, winter 1932-33

Location of plant (town)	Pork cured (pounds)	Former experience (curing seasons)	Plans for next winter, (based on farmers' interests)
Booneville	21,630	None	Enlarge capacity
Brooksville	50,000	"	" plant
Carrollton	6,300	1 season	Larger volume
Centerville	(No report)		
Columbus	15,000	None	Enlarge capacity
Fayette	20,110	"	Expect larger volume
Forrest	50,000	"	Enlarge capacity
Greenwood	100,000	"	Larger volume
Mendenhall	5,800	"	" "
Laurel	50,000	"	Enlarge capacity
Lexington	18,000	"	No change
Vicksburg	250,000	1 season	Enlarge capacity
Woodville	40,000	None	" "
Yazoo City	60,000	1 year	No change

A number of questions in the questionnaire are not indicated in the above table. One of these questions was, "Do you expect to handle a larger volume of pork next winter? In nearly every case the reply was in the affirmative, indicating that the plan had been very successful and that it is meeting a real need on the part of the farmers. In a number of cases, an intention to enlarge the capacity of the local plants was indicated and many additional plants are expected to operate.

The question was asked as to what might be done in the way of educational work to correct practices which farmers are now using that would mean cured products of a better quality. The replies indicate quite uniformly that improved methods of slaughtering and handling are much needed and that too often the hogs are incompletely bled, due either to poor sticking or careless handling before sticking. It was pointed out by a number of the county agents and plant managers that hogs were frequently brought in for curing which had been slaughtered too far in advance of being delivered to the chilling rooms, which resulted in a degree of souring before even reaching the curing plant.

It is known that if farmers would slaughter their hogs at lighter average weights they would save much feed and at the same time have cured products of higher quality than they are securing from hogs of the type, size, and finish so frequently used.

Plans are being formulated now for field demonstrations this fall in the farm slaughtering of hogs with the idea that these undesirable practices may be corrected and an improvement in production methods be adapted. Cutting and curing demonstrations will be continued also. K. F. Warner, Animal Husbandman in Meats Extension, U.S.D.A., Washington, is expected to cooperate with the Extension Service this fall as he did last winter.

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COLORADO WOOL IMPROVEMENT

We are conducting some new work in wool improvement this year. It is based on the practices of culling and selection in the breeding flock. The plan provides that the extension animal husbandman visit the flocks of cooperating owners just prior to shearing for the purpose of classifying the sheep into three groups - culls or rejects, tops or selects and the intermediates. The rejects are marked across the face with red chalk, the tops with blue chalk and the intermediates are left unmarked. In the culling operations consideration is given to both quantity of wool and conformation of the animal.

At shearing time 10 percent of all the fleeces are weighed and samples of the wool are taken from the shoulder, side, and rump, aiming to get from 1/10 to 1/8 of a pound of wool in each sample. These samples are sent to the wool laboratory at the college where they are graded and scoured and reports of results sent back to the grower. Part of this grading and scouring work is done as regular class-room work and part of it by paid student labor, all being under the direction of Prof. H. R. Lascelles who is in charge of the wool laboratory.

Results thus far show that the culled ewes have yielded an average of 5.8 pounds of wool, the intermediates (unmarked) 8.07 pounds and the "tops" or selected ewes, 9.72 pounds. The culled ewes will be disposed of this fall and replacements made either from the "selected ewes or by purchase. In either case a second culling for conformation and quality will be conducted at this time and only those ewes possessing desirable qualities will be retained for breeding. Before breeding time careful selections of rams for use with each segregation of ewes will be made.

We have six producers, owning approximately 28,000 head of sheep, cooperating with us in this work this year.

By following this program over a five-year period we hope to have established a more uniform type of ewe, a more uniform type of fleece and to have increased the average yield of wool per ewe.

--A. C. Allen, Colorado Extension Animal Husbandman.

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EXCERPTS FROM OKLAHOMA REPORT

Creep feeding of grain to beef calves was emphasized as one of the important phases of beef cattle extension work during 1932. Meetings were held in many counties of the State to stress the importance of grain feeding beef calves for the market under the plan known as creep-feeding.

The county agents, in 39 counties of the State, reported one or more creep-feeding demonstrations completed in their counties during the year, a total of 155 demonstrations which included 7,023 head of beef calves. These demonstrations included an average of 45 calves being creep fed per farm or ranch. While accurate records and feed costs on gains made were not kept, in the majority of cases the results indicate that many of the men who creep fed their calves secured twice as much for the grain fed as it would have brought if sold on the market. The majority of men who reported on their creep-feeding demonstrations indicated that the creep-fed calves weigh from 100 pounds to 225 pounds more at weaning time than calves of similar quality that were not fed grain while nursing their mothers. Most of the beef-cattle men consider that this is a practical and profitable method of producing high-quality baby beef under Oklahoma conditions.

More Purebred Beef Bulls Being Secured

Reports from the county agents show that more assistance was given the beef-cattle men of the State in securing purebred bulls during 1932 than at any other time during the last seven years.

The following summary indicates the increased activity on the part of the county agents in assisting farmers in securing purebred beef bulls:

<u>Year</u>	<u>1926</u>	<u>1927</u>	<u>1928</u>	<u>1929</u>	<u>1930</u>	<u>1931</u>	<u>1932</u>
Number of farms assisted in securing purebred beef bulls	76	141	145	236	265	291	370
Number of counties in which such assistance was given	24	29	36	46	45	54	62

Swine Sanitation Demonstrations

The sanitation phase of the swine project was emphasized during 1932 in 15 counties through 36 swine sanitation demonstrations, carrying out the details of the McLean county system of swine sanitation. These demonstrations included 335 litters of pigs.

Reports from the county agents show that on an average the swine raisers who completed swine sanitation demonstrations were enabled to raise 26 percent more pigs to weaning time by following this system than without it. This ranged from 5 percent in demonstrations in Muskogee to 85 percent in Coal County.

4-H Livestock Club Work in Oklahoma

In spite of the fact that livestock prices were considerably lower last year than during the 5-year period preceding, there was increased interest and enthusiasm among the 4-H livestock club members of Oklahoma during 1932. The 4-H livestock club members carried out club projects in 74 of the 77 counties of the State. There were 4,522 pig-club members enrolled in 1932 as compared with 3,102 during the year 1931. In the baby-beef club the greatest increase in enrollment was noted. There were 1,668 baby-beef-club members enrolled in 1932 as compared with 943 during 1931. In the 4-H lamb club there were 330 members enrolled compared with 290 during the preceding year. The total enrollment in the pig, baby-beef, and lamb clubs for the year was 6,520 compared with 4,335 during 1931. This represents an increase of enrollment over that of 1931 of 1,420 pig-club members, 725 calf-club members and 40 lamb-club members.

--Paul G. Adams, Extension Animal Husbandman.

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SUMMARY OF MISSOURI RESULTS

The following table is taken from the 1932 annual report of J. W. Burch, extension animal husbandman, Missouri Extension Service.

MEETINGS AT WHICH SUBJECT MATTER WAS TAUGHT BY SPECIALISTS IN 1932

Type of work	Meetings				Total	
	General		Result and method dem.			
	No.	Attendance	No.	Attendance	Meetings	Attendance
Hog sanitation and feeding	63	4,320	30	1,402	93	5,722
Beef-cattle feeding & beef herds	89	5,138	38	2,709	127	7,847
Sheep improvement	57	3,173	98	5,969	155	9,142
Horses	12	485	50	6,163	62	6,648
Livestock club activities	4	155	9	2,150	13	2,265
Totals	225	13,231	225	18,393	450	31,624

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TEXAS SWINE DEMONSTRATIONS

The type of demonstration work done in Texas with swine in 1932 was changed somewhat from the type done in former years, due to the extremely low market prices offered for commercial hogs and to the shortage of money with which the farmers could buy food for their own families, their laborers, and their tenants. This year we counted the achievements of our demonstrators, not so much by the number of commercial hogs marketed but instead by the number of hogs hanging by the hind legs in trees on a cold morning, by the number of barrels of meat in cure, and by the number of hams, bacons, and links of sausage hanging in the smoke house.

The hog population in Texas increased by leaps and bounds. Texas now has fully twice as many hogs as it had when the last census was taken. Not only have hog numbers increased but hog-production sense has also made considerable progress. During 1932 Texas farmers were diligently seeking information on the most economical methods of producing hogs, as well as the methods of curing and preserving pork that would result in the best-flavored and most palatable products. To sum up the year's work in one statement: - Texas smoke houses and pantries are well filled with pork and pork products, and at the same time Texas commercial packers have been able to buy more hogs than at any time in recent years.

Lowering Cost of Production

Low-priced hogs forced farmers to lower their cost of production. The use of grazing crops to their fullest extent has greatly cheapened the cost of a pound of pork. Demonstrations in the use of hog pastures were conducted in 119 counties with 3,840 farmers.

Low hog prices were accompanied by relatively low grain prices. All possible expense in preparation and feeding had to be avoided. Demonstrations, therefore, were conducted in feeding whole grain in self-feeders or on feeding floors and also in hogging down crops. Two thousand four hundred and ninety-eight new self-feeders were built in 135 counties, and 4,169 farmers used these and others previously built, feeding out 70,276 hogs by this method. Additionally, 375 demonstrations were conducted in 72 counties in hogging down crops.

Demonstrators, realizing the importance of feeding a protein

supplement, used skim milk more extensively than ever before. When a sufficient supply of skim milk was not available they supplemented it with a fourth of a pound of cottonseed meal per pig per day. Those who had no skim milk used a protein supplement consisting of equal parts by weight of cottonseed meal and tankage. The records of 6,964 demonstrators in 134 counties reveal very conclusively that it pays to feed a protein supplement to hogs, even though grain is abundant and has a very low market value.

By employing these economical methods of production farmers succeeded in producing hogs at a profit. The records of 5,529 demonstrators and cooperators in 125 counties reveal that \$273,770 worth of farm-grown grain was marketed through hogs for \$410,319. In other words, hogs paid the farmer 50 percent more for his grain than he could have gotten for it if he had sold it on the open market. The added labor and investment involved was not a very large item because practical self-feeders or feeding floors were employed in most cases where crops were not hogged down in the field. The average feed cost per pound of pork produced was 2.2 cents per pound.

Marketing

The farmers' own table was the best market in 1932. In many instances farmers killed their hogs on the farm and sold hams, bacon and sausage in preference to selling the hogs on foot. One farmer in Hale County successfully sold sixty hogs in this way. Examples of farmers selling a few surplus hogs in cured form are numerous. The success of this movement depended on the quality of the cured product.

In order to improve the quality of cured pork produced on Texas farms numerous demonstrations were given by county agents in the killing and curing of pork. As a result 17,512 demonstrators in 138 counties killed and cured 53,431 hogs. The accomplishments of 1932 practically trebled the 1931 record.

Alongside the tremendous home consumption of pork we experienced also an increase in the marketing of commercial hogs. The United States Department of Agriculture, Division of Crop and Livestock Estimates, in cooperation with the Bureau of Business Research of the University of Texas, reports 9.7 percent greater shipments of hogs for the first 11 months of 1932 than in the same eleven months the previous year. This goes to show that Texas farmers are now producing more hogs. They slaughter for home use as many as they can possibly use, slaughter and sell the rest in cured form, or sell on foot. There are also noticeably more sows on farms.

Swine Demonstrations with Boys

Pig-feeding demonstrations are leading all other types of demonstrations done by boys. In 1932, 4,934 boys undertook swine-feeding demonstrations, and of these 2,467 turned in a completed record. About half of the boys keep sows and raise their own feeders, while the remaining half buy their feeders. Completed records show that the average boy sells his pig when it weighs 205 pounds. The average feed cost to produce a pound of pork was 2.29 cents, and the average return for labor and investment was \$3.30 per pig.

For a number of years special effort has been made to increase the size of the demonstrations conducted by boys. In 1930 the average number of pigs per boy was 2.2, in 1931 2.5 and in 1932 2.7. Progress along this line is very slow, but seemingly steady. In the number of sows kept by boys progress is much more rapid. In 1931 we had 671 sows in boys' demonstrations and in 1932 1,148 sows. It is believed that the number of sows kept by boys will ultimately result in more pigs being fed out.

Swine demonstrations are being conducted in more and more counties from year to year. In 1929 swine-production demonstrations were conducted in 70 counties. Each year a few additional counties took up the work. This year swine production demonstrations were conducted in 112 counties.

In 1929, 418 farmers and cooperators conducted swine production demonstrations. The number of farmers reached by this work has steadily increased each year. In 1932 we assisted 882 demonstrators and 2,180 cooperators. These demonstrators and cooperators had a total of 58,234 hogs.

It is very interesting to note the decrease in feed cost over a period of years, the relative decrease in hog values, and the relative farmer's return for labor and investment. In 1930 the feed cost was \$17.25 per hog and the return to the farmer for labor and investment was \$4.80 per hog fed out. The feed cost has sharply declined each year. In 1932 the feed cost per pig fed out for demonstrators was \$4.98, and for cooperators \$4.63, accompanied by a labor-and-investment return of \$2.62 per pig for demonstrators and \$2.06 per pig for cooperators. In spite of extremely low market prices offered for hogs, farmers have succeeded in making a fair return on their labor and investment.

The above results could be accomplished only by the use of

the most economical methods of production. Over 50 percent more farmers fed a good protein supplement in 1932 than in 1931. Slightly over 150 percent more farmers used self-feeders in 1932 than in 1931. The number of hogs fed on self-feeders has more than doubled in the last year. More than three times as many farmers are using hog pastures than the year before. Farmers are beginning to use hogs to harvest corn and other feed crops to save costs. Farmers are constructing more adequate watering systems to save labor and to make hog production easier and more profitable.

Similar growth has been made in pork-curing work. In 1929 two pork-curing demonstrations were held by the swine specialist. No figures are available as to the work done by the county agents that year, but since work of this kind was very new in Texas at that time, it is likely that this amount was very little. In 1930 the swine specialist and the meat specialist held 13 agents' training schools. After attending these training schools county agents held 25 demonstrations. In 1931 and 1932 additional training schools were conducted by specialists. The meat specialist conducted about half of these training schools and the swine specialist the other half.

Many county agents were busy during the cold season of the year helping farmers to cure pork the "A. and M. Way." In 1931 9,533 farmers cured 20,583 hogs and in 1932 17,512 farmers cured 53,431 hogs the "A. and M. Way." At the conclusion of 1932 the work had reached 138 counties in Texas.

--From Annual Report of E. M.
Regenbrecht, Swine Specialist.

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YOUNG PIG MORTALITY

In a study of hog production in East Prussia, German authorities report some interesting data regarding the relationship between size of litter and mortality of pig up to 4 weeks of age. A total of 3,619 pigs were involved in the study. Findings were as follows:

Litter size	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Percentage dead before 28 days	33	20	12	12	9	17	14	22	20	25	36	42	40	46	52	58

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Two thousand five hundred and seventy-nine boys and girls were enrolled in 4-H pig club work in Louisiana in 1932. Eighteen hundred and five of them completed all requirements.

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ILLINOIS SWINE FEEDING NOTES

The economical hog-feeding work in Illinois involves the feeding of farm grains with sufficient low-cost protein in suitable form to make the pigs gain rapidly; providing pasture in summer and alfalfa hay in winter; and giving salt. No other mineral is needed if two-thirds of the added protein is from animal sources such as skim milk or tankage. As compared with corn alone or corn with minerals, or corn with feeds having a high cost for each pound of protein, these rations made up of grain, good cheap protein, pasture or alfalfa hay, and salt have resulted in a saving of 15 to 20 percent in the cost of feed to produce each 100 pounds of pork, or at ordinary prices, a saving of \$2.50 for each 225-pound hog.

The results of good methods show up plainly in farmers' accounts. Last year the most successful one-fifth of a group of 130 farmers in Henry, Stark, Knox, and Peoria Counties saved 74 cents in feed cost for each 100 pounds of pork produced, or a saving of 17 percent as compared with the least profitable one-fifth of the group. They also sold their hogs at an average of 40 cents a hundredweight higher than their less successful neighbors. The successful ones had a return of \$123.00 for each \$100.00 worth of feed fed to the hogs while the unsuccessful ones received only \$81.00 for each \$100.00 worth of feed. These results show plainly the advantage to the men who fed rations which are both good and cheap.

Soybean oil meal was used last year by large numbers of Illinois farmers in place of linseed oil meal in their mixture including tankage. It gave splendid results. Farmers have been urged to use soybeans as a source of protein for their brood sows. This can be done without injuring the quality of pork. When fed about three-fourths of a pound a day during the gestation period and about one and one-fourth pounds during the suckling period a brood sow is supplied with sufficient protein. The 700,000 sows and boars in Illinois could handily eat an average of 4 bushels of beans a year, or a total of 2,800,000 bushels which is just half of the total Illinois 1932 crop of 5,635,000 bushels of soybeans.

-----From Annual Report of E. T. Robbins.

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OHIO TON-LITTER CLUB

Seventy-three ton litters, each weighing 2,000 pounds or more at the age of 180 days were produced by 64 individual owners located in 30 different counties of the State in 1932. In addition, 12 farmers owning a total of 85 breeding sows were members of the Ohio Pork Production Club, and kept detailed records of their hog business.

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WOLVERINE LAMB-PRODUCTION CONTEST, 1932

This project has proved to be one of the most successful and best received individual projects conducted in our department. This year 182 sheepmen enrolled and 118 of them completed all requirements and sent in official records. Forty-seven counties were represented in the enrollment.

The requirements of this project are as follows: Contestants must have at least 20 ewes bred to a purebred ram. No stipulations are made as to management practices except that all lambs must be docked and the males castrated. Each contestant is required to keep accurate lambing records and furnish a management report at the completion of the project. Final results are based on the number of pounds of lamb produced per ewe in 135 days.

The winner in this work for 1932 was Charles Covell who was also the Champion flock master in 1931. His record of 141.9 pounds of lamb per ewe in 1932 was less than the State record of 153.84 pounds which he established last year. Mr. Covell is using very good management practices and is always glad to follow any new recommendations. We make good use of these data from an extension standpoint, as sheepmen in general are interested in knowing how the champion made his record. Mr. Covell is also consistent as shown by his records during the last three years. Before that time he was having a great deal of trouble and one year lost five sheep from internal parasites. This caused him to be interested in doing something for his flock and he decided to attend a sheep meeting, in his vicinity, on drenching. He used the information with good results and from that time on has been a good cooperator.

We believe that personal contact is a valuable contribution in a successful extension project. During the year, 142 personal visits were made to the farms of the different co-operators in this project. A questionnaire was filled in at the time of these visits on which a number of questions were answered and a memorandum made of the management practices followed on each farm. These were later summarized and are of value in showing the situation of sheep production in Michigan. Besides this the management practices of the leading men are good recommendations for other sheepmen to follow.

Since the establishment of this work three years ago a marked improvement has been shown in the general management practices followed by sheepmen and also in the records made by

cooperators in this project. The 118 flocks completing the work this year made an average of 99.17 pounds of lamb per ewe, as compared with the average of 95.96 pounds produced by the 101 flocks in 1931 and the average of 87.07 pounds produced by the 85 flocks in 1930. In addition to this, more of the 1932 flocks are classed in the group producing 120 pounds of lamb per ewe or better.

A new feature added to the project this year was the exhibition during Farmers' Week at the college of pens of three ewe lambs from each of the winning flocks. An attractive display was made of these pens and they created considerable interest. Charts were used to show the management practices followed by the winners and other information was displayed which had direct educational value. This project is of value to Michigan's sheepmen according to the favorable reports received from the cooperators as well as other sheep raisers who have received valuable information from the results of this work. A statement from a letter received from Thomas Hogarth, Atlanta, one of the contestants, is as follows: "I have received so much valuable and useful information from you in the last few years, it is beginning to be very encouraging to me. One good thing I see in these contests is that it shows me just where I stand as compared with the best in our community or State. Another thing, it shows us just what we can do if we make the effort, and most important, it turns us to using better feeding and breeding practices with the flock which, of course, mean better returns."

The development of this project has made it possible to lay more stress on other phases of our work. It has helped to show the sheep raiser and county agricultural agent that there is a real need for some of the better practices, and that if they are carried out they are a paying proposition. Through the personal visits made to the cooperators' farms it has been possible to encourage many of them to change their practices with improved results.

A short summary of the 1932 project shows that the average-size flock was 45 ewes and that the percentage of lambs dropped in each flock was 149.42 percent. This is for the 118 flocks finishing the project. One hundred forty-two cooperators were visited and of this number 120 flushed their ewes, 121 fed legume hay, 130 used individual lambing pens, 71 creep fed their lambs, 110 drenched their ewe flocks three times or more during the grazing season, and 74 drenched their lambs three or more times before marketing. Most of the other contestants drenched once or twice. Ninety-one of the contestants dipped their flocks. The average weight of wool per

ewe was 8 1/2 pounds. Most of the flocks received grain before and after lambing, while some flocks lambed late and were on pasture. Eighty-nine of the contestants sorted and graded their lambs before marketing. One hundred thirty-seven provided winter exercise, 94 grain-fed their rams before the breeding season and one ram was used as an average for every 33 ewes.

This project will be conducted again in 1933 as many of the contestants are using the figures of the past contests as a comparison in helping them to improve the records of their flocks. Many are also following the successful practices of the winners and we feel that through this work a very valuable means of aid is provided for use in our extension program.

--From Annual Report of D. H. Lavoie,
Michigan Extension Animal Husbandman.

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KANSAS BEEF-CATTLE-DEMONSTRATION STATISTICS

No. farmers cooperating in herd-management demonstrations	390
No. of beef cattle involved	29,450
Profit per calf over average methods	\$ 7.48
No. farmers using purebred bulls	8,191
Percentage using purebred bulls	75
No. farmers assisted in getting purebred bulls	173
Percentage using silos	43
Percentage wintering cows well	56
Percentage producing January, February and March calves	30
Percentage creep feeding calves	12
Percentage using balanced ration in fattening	57
Percentage producing and fattening own calves	30

--From 1932 Annual Report

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SOUTH CAROLINA SHEARING DEMONSTRATIONS

Four sheep-shearing demonstrations were held in May. One of these was for the purpose of training 4-H sheep-club boys. The boys were very much interested and showed considerable ability in handling sheep and in clipping them. This demonstration took the form of a shearing contest in which a pair of hand shears was awarded to the boy who showed the most proficiency. The other three demonstrations were for adults and included methods of shearing and wool tying. As a result some rather crude and inefficient practices were replaced by quicker and easier methods and a better product.

--J. R. Hawkins.

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NEBRASKA PIG-CROP CONTEST, 1932

Seventy-seven farmers entered the Nebraska Standard Pig-Crop Contest and of this number 30 sent in complete reports. Many did not finish the contest on account of a feed shortage and disposed of their pigs or ran them on pasture without grain. Others dropped out because of considerable losses among their pigs during the first two or three weeks. A severe storm swept the State about March 10. Many sows and litters were not properly protected and, as a result, many pigs were lost. Each year circumstances of this kind prevent a number of entrants from completing.

It is through the pig-crop contest that the hog-lot sanitation program is put over in a practical way. Among the entrants each year are some who will follow the sanitation program to the letter. Others follow it only in part, and still others make no attempt to follow the program. Effort is made to get each entrant to practice sanitation, but if he does not care to he is allowed to go his way. The fact that this condition exists gives an excellent means of measuring the value of the system.

Fifteen of the 30 farmers completing produced an average of 1,447.2 pounds of pork per sow. They kept an average of 15.5 sows per farm and raised and marketed 7.6 pigs per sow, which is two pigs more than the State average.

The following table gives a summary of results:

Item	Best 15 <u>Farms</u>	All 30 <u>Farms</u>
Average feed and labor cost per cwt. of all pork produced	\$2.64*	\$2.81**
Average cost per pig	5.08*	4.86**
Average weight of all pigs raised at 6 months of age (lbs.)	190.9	170.9
Average weight of all litters produced (lbs.)	1447.2	1156.5
Average number of sows per farm	15.5	14.5
Average number of pigs farrowed per sow	10.1	9.2***
Average number of pigs raised per sow	7.6	6.7***
Average percentage of farrowed pigs raised	75	73

* Average of 13 farms

** Average of 27 farms

***Average of 29 farms

--From Nebraska Annual Report.

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RECENT PUBLICATIONS

"Practical Hog Houses for Indiana", by Hill and Schwab - Purdue (Indiana) Extension Service Bulletin No. 76 (Revised).

"Hogging Off Corn and Sweet Potatoes" by Bray and Francioni - Louisiana Experiment Station Bulletin No. 236.

"Care and Management of Swine" by C. P. Thompson - Oklahoma Extension Service Circular No. 225 (Revised).

"Hog Prices and the Hog Enterprise on Idaho Farms" by T. L. Gaston - Idaho Experiment Station Bulletin No. 191.

"Swine Performance Record - Litter Comparison - Series III" by Culbertson and others - Iowa Experiment Station Leaflet No. 30.

"Market Pigs - Selection, Feeding and Management" by John W. Wuichet - Ohio Extension Service 4-H Circular No. 84.

"Developing Breeding Gilts" by John W. Wuichet - Ohio Extension Service 4-H Circular No. 83.

"Raising Beef Calves in Indiana" by P. T. Brown - Purdue (Indiana) Extension Service Bulletin No. 187.

"Feeding and Care of Baby Beef and Purebred Heifer Club Calves" by Carl A. Oldsen - Iowa Beef Producers' Association, Ames, Iowa.

"4-H Baby Beef Manual" - Nebraska Extension Service Circular 2-52-2 (Revised).

"Suggestions for the Winter Feeding of Steers" by Good and Rhoads - Kentucky Extension Service Circular No. 75 (Revised).

"The Relation of Body Shape of Feeder Steers to Rate of Gain, to Dressing Percent, and to Value of Dressed Carcass" by J. L. Lush - Texas Experiment Station Bulletin No. 471.

"Feeding Tests and Carcass Studies with Early Spring Lambs and Aged Western Ewes" by Weber and Loeffel - Nebraska Experiment Station Bulletin No. 276.

"Fattening Range Lambs in Idaho" by Rinehart, Hickman, and Johnson - Idaho Experiment Station Bulletin No. 194.

"Feeding and Management of Sheep" by P. S. Shearer - Iowa Experiment Station Circular No. 138.

"A Manual for Sheep Club Members" by Kammlade and Pilchard - Illinois Experiment Station Circular No. 351.

"Killing, Cutting and Curing Pork" by Wilford and Sellards Kentucky Extension Service Circular No. 261.

"Butchering and Curing Pork" by W. J. Sheely - Florida Extension Service Bulletin No. 71.

"Home Preservation of Meats" by Atwood and Loeffel - Nebraska Extension Service Circular No. 936.

"The Mare and Foal" by R. S. Hudson - Michigan Extension Service Bulletin No. 128.

"Horse Feeding" by W. C. Skelley - New Jersey Experiment Station Circular No. 268.

"Tractor and Horse Power in the Wheat Area of South Dakota" by Hampson and Christophersen - South Dakota Experiment Station Circular No. 6.

"Debts Increase, Incomes Decrease as Horses Decline" by Wayne Dinsmore - Horse Association of America Leaflet No. 210.

"Growth and Development with Special Reference to Domestic Animals" by Hall and Brody - Missouri Experiment Station Research Bulletin No. 180.

"Phosphates for Livestock in Montana" by Howard Welch - Montana Extension Service Circular No. 47.

"Relation of Variations in the Human Factor to Financial Returns in Farming" by Wilcox, Boss and Pond - Minnesota Experiment Station Bulletin No. 288.

"The Problems of 'Submarginal' Areas, and Desirable Adjustments with Particular Reference to Public Acquisition of Land" - Publication No. 6 of the National Land Use Planning Committee and National Advisory and Legislative Committee on Land Use, Washington, D. C.

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